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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,261	10/31/2003	George E. Mueller	59967-44	2944
22504 7590 06/28/2007 DAVIS WRIGHT TREMAINE, LLP 1201 Third Avenue, Suite 2200 SEATTLE, WA 98101-3045			EXAMINER DINH, TIEN QUANG	
			ART UNIT 3644	PAPER NUMBER
			MAIL DATE 06/28/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/698,261	Applicant(s) MUELLER ET AL.	
	Examiner Tien Dinh	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-27 and 29-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-21, 27 and 29-36 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 11, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwartz.

Schwartz discloses a system having a reusable orbital vehicle (see figure 1), a thermal protection system 5, 7, 12 that are mounted to the skin 8 of the vehicle, inherently an internal payload coupled to the inner portion of the vehicle such as the fuel, engine, support structure, electronics, etc., and external payload packages (the fins in figure 1) that are positioned on the outermost layer of the vehicle and is exposed to the atmosphere. Please note that “reusable” is intended use and carries no patentable weight. The inherent rocket engine is located at the rear/second end of the vehicle and this is where the external packages are located. Since the fins are located to the rear, they are rearward of the midpoint between the first end and the second end.

Re claim 3, please note that it is inherent that the external packages are retained and received at the attachment positions.

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Claims 1-4, 7, 9-14, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Jouffreau.

Jouffreau discloses a system having a reusable, elongated shape, orbital vehicle (see figure 1), a thermal protection system 16e, 34, that are mounted to the skin 30 of the vehicle, inherently an internal payload coupled to the inner portion of the vehicle such as the fuel, engine, support structure, electronics, etc., external payload packages 37, 40, 41, 42, that are positioned on the outermost layer of the vehicle and is exposed to the atmosphere, and carrier plate 36 that is intermediate to the outer skin surface of the vehicle and the packages (see figure 6). The external packages are placed from the front to the rear/skirt part of the vehicle. Essentially, the packages are placed all over the outside part of the vehicle. Please note that “reusable” is intended use and carries no patentable weight. The rocket engine is located at the rear/second end of the vehicle.

Re claim 13, please note that any parts on the interior portion of the aft skirt can be broadly read as a protected attachment position. Please see the inside of today’s interior portion of the aft skirt. Re claim 14, a screw or attachment members in the interior portion is well known in this day and age. The applicant has not challenged that these parts are well known in his response.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz.

Schwartz discloses all claimed parts except for the sensors. The examiner took official notice on this in the last office action and the applicant has not challenged this. Hence, these are well known parts that one skilled in the art would have used to know the operational functions of the vehicle.

Claims 5, 6, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jouffreau in view of Bridges et al.

Jouffreau discloses all claimed parts except for the access panel. However, Bridges disclose a reusable orbital vehicle that has access panels/landing gear doors (see figures 4-7) are well known (looks like the space shuttle).

It would have been obvious to use an access panels/landing gear doors in Jouffreau's system as taught by Bridges et al to protect the landing gears. Please note since the access panels are at the lower end of the vehicle, the panels contain the external payload packages. Re claim 6, it is inherent that the access panel is removable.

Re claims 22-24, the examiner took official notice on this in the last office action and the applicant has not challenged this. Hence, these are well known parts that one skilled in the art would have used to know the operational functions of the vehicle.

***Response to Arguments***

In response to applicant's arguments that Swartz does not teach a reusable vehicle, the examiner respectfully disagrees. Schwartz's vehicle is capable of being reused since one skilled in the art can refurbish or "clean" up the vehicles for reuse. In addition, the examiner has stated that reusable is intended use and carries no patentable weight. It is clear that since Schwartz's vehicle is not destroyed after the mission, it is clear that it is reusable. The examiner also disagrees with that Schwartz and Jouffreau do not show what has been claimed. The examiner must take the broadest interpretation in the claims. The external payload packages are the fins and the elements 40-42. The claim language is broad and hence is met by Schwartz and Jouffreau. The fins and elements 40-42 are external payload packages. As for the Bridges et al reference, please note that this reference shows what has been claimed. The applicant argues the use of experimental packages is irrelevant as it is not claimed. Furthermore, "experimental" is intended use. Anything that can be analyzed or measured or studied is part of an experiment.

***Allowable Subject Matter***

Claims 15-21 and 27, 29-36 are allowed.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TD

re JLV